

We Claim:

1. A fabric for use in safety apparel, comprising:
 - (a) a first set of yarns comprising modacrylic fibers;
 - (b) a second set of yarns comprising anti-static fibers; and

5 (b) wherein, the fabric meets the Federal Test Method Standard 191A, Method 5931 for electrostatic decay, and the Electrostatic Discharge Association Advisory ADV11.2-1995 voltage potential.

2. The fabric of Claim 1 wherein said anti-static fibers are stainless steel fibers.

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3. The fabric of Claim 1 wherein the second set of yarns comprise a blend of modacrylic fibers and stainless steel fibers.

4. The fabric of Claim 3 wherein the second set of yarns comprise about 20 percent stainless steel fibers.

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5. The fabric of Claim 1 wherein the first set of yarns further comprise high energy absorptive fibers.

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6. The fabric of Claim 1 wherein the fabric comprises at least about 1 percent anti-static yarns.

7. The fabric of Claim 1 wherein the first and second set of yarns comprise at least about 85 percent of the fabric.

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8. The fabric of Claim 1 further comprising a dye applied to said fabric, wherein when the dye is applied to said fabric, the dyed fabric meets the American National Standard Institute standard ANSI/ISEA-107 minimum conspicuity level class requirements for occupational activities for high-visibility safety apparel.

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9. The fabric of Claim 5 wherein said modacrylic fibers and said high energy absorptive fibers are intimately blended staple fibers.

10. The fabric of Claim 5 wherein the fabric meets the American Society for
10 Testing and Materials standard ASTM F-1506 for flame resistance.

11. The fabric of Claim 1 wherein said fabric is woven.

12. The fabric of Claim 5 wherein said yarn comprises between about 70 percent
15 and 97 percent modacrylic fibers and between about 3 percent and 30 percent high energy absorptive fibers.

13. The fabric of Claim 9 wherein said blend of fibers comprises between about 90 percent and 97 percent modacrylic fibers and at least about 3 percent high energy
20 absorptive fibers.

14. The fabric of Claim 1 wherein said modacrylic fibers contain at least 50 percent acrylonitrile.

15. The fabric of Claim 1 wherein said modacrylic fibers have a tenacity of at least about 2 grams/denier.

16. The fabric of Claim 5 wherein the high energy absorptive fibers are aramid.

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17. The fabric of Claim 16 wherein the aramid is formed from poly-paraphenylene terephthalamide.

18. The fabric of Claim 5 wherein the high energy absorptive fibers are selected 10 from the group of fibers consisting of meta-aramids and para-aramids.

19. The fabric of Claim 5 wherein said high energy absorptive fibers have a tenacity of at least about 4 grams/denier.

15 20. The fabric of Claim 11 wherein said woven fabric has a tensile strength of at least about 100 pounds in the warp direction and at least about 100 pounds in the weft direction.

21. The fabric of Claim 11 wherein said woven fabric has a tear resistance of at 20 least about 1360 grams.

22. The fabric of Claim 11 wherein said woven fabric comprises anti-static fibers in both the warp and fill directions.

23. A safety garment having high visibility and flame resistant characteristics formed from:

- (a) a fabric comprising a first set of yarns and a second set of yarns;
- (b) the first set of yarns comprising modacrylic fibers;
- 5 (c) the second set of yarns comprising anti-static fibers; and
- (d) wherein, the fabric meets the Federal Test Method Standard 191A, Method 5931 for electrostatic decay, and the Electrostatic Discharge Association Advisory ADV11.2-1995 for voltage potential.

10 24. The safety garment of Claim 23 wherein said anti-static fibers are stainless steel fibers.

25. The safety garment of Claim 22 wherein the second set of yarns comprise a blend of modacrylic fibers and stainless steel fibers.

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26. The safety garment of Claim 25 wherein the second set of yarn ends comprises about 20 percent stainless steel fibers.

27. The safety garment of Claim 23 wherein said yarns further comprise high 20 energy absorptive fibers.

28. The safety garment of Claim 23 further comprising a dye applied to said fabric, wherein when the dye is applied to said fabric, the dyed fabric meets the American National Standard Institute standard ANSI/ISEA-107 minimum conspicuity 25 level class requirements for occupational activities for high-visibility safety apparel.

29. The safety garment of Claim 27 wherein the fabric meets the American Society for Testing and Materials standard ASTM F-1506 for flame resistance.

5 30. The safety garment of Claim 27 wherein said modacrylic fibers and said high energy absorptive fibers are intimately blended staple fibers.

31. The safety garment of Claim 23 wherein said fabric is woven.

10 32. The safety garment of Claim 23 wherein said yarn comprises at least about 70 percent modacrylic fibers and at least about 3 percent high energy absorptive fibers.

15 33. The safety garment of Claim 25 wherein said blend of fibers comprises between about 90 percent and 97 percent modacrylic fibers and at least about 3 percent high energy absorptive fibers.

34. The safety garment of Claim 23 wherein said modacrylic fibers contain at least 50 percent acrylonitrile.

20 35. The safety garment of Claim 23 wherein said modacrylic fibers have a tenacity of at least about 2 grams/denier.

36. The safety garment of Claim 27 wherein the high energy absorptive fibers are aramid.

37. The safety garment of Claim 36 wherein the aramid is formed from poly-paraphenylene terephthalamide.

38. The safety garment of Claim 27 wherein the high energy absorptive fibers are
5 selected from the group of fibers consisting of meta-aramids and para-aramids.

39. The safety garment of Claim 27 wherein said high energy absorptive fibers
have a tenacity of at least about 4 grams/denier.

10 40. The safety garment of Claim 31 wherein said woven fabric has a tensile
strength of at least about 100 pounds in the warp direction and at least about 100
pounds in the weft direction.

41. The safety garment of Claim 31 wherein said woven fabric has a tear
15 resistance of at least about 1360 grams.

42. The safety garment of Claim 31 wherein said woven fabric comprises anti-
static fibers in both the warp and fill directions.